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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/820,551

Applicant(s)

APOSTOLIDES, JOHN K.

Examiner

JOHN RIVELL

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/3/09 (Req for Recon).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18, 37-41, 44, 55-69 and 81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18, 37-41, 44, 55-69 and 81 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 09032009
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Applicant's arguments filed September 3, 2009 have been fully considered but they are not persuasive. Claims 19-36, 42, 43, 45-54 and 70-80 have been canceled. Claims 1-18, 37-41, 44, 55-69 and 81 remain pending.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 6, 7, 10, 12, 13, 16, 18, 37, 40, 44, 55, 58, 60-63 and 65-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knobloch et al. (U. S. Pat. No. 3,043,499) in view of Robert et al. (U. S. Pat. No. 5,566,781 cited by applicant).

The patent to Knobloch et al. discloses, in figure 2 for example, a recirculating system in which fluid from two parallel connected valve chest chambers 5, 5a flows from the chest chambers 5, 5a to a supply line 9, cylinder 3 return line 8 and back in parallel to valve chests 5, 5a. Note in particular fill passage 12.

The patent to Knobloch et al., in particular the recirculation circuit demonstrates a known "valve assembly comprising: a first check valve (outlet check valve 7) structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (7), further comprising an outlet of said first check valve (7) being in fluid communication with at least a portion (at supply conduit 9) of a fluid system; wherein the application of positive pressure from an inlet/outlet port (4) at a common refill/evacuation location (chamber 5) causes fluid to flow from the common refill/evacuation location through said first check valve (7) into said fluid system: a second check valve (inlet check valve 6) having an outlet in fluid communication with said inlet of said first check valve (7), said second check valve (6) being structured to

permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve (6), further comprising an inlet of said second check valve (6) being in fluid communication with a portion (at return conduit 8) of said fluid system, wherein the application of negative pressure from the inlet/outlet port (4) at the common refill/evacuation location (5) causes fluid to flow from said fluid system (from conduit 8) through said second check valve (6) into the common refill/evacuation location (5) and wherein said outlet of said first check valve (7) is in fluid communication with the inlet of said second check valve (6 via the fluid circuit from the outlet of check valve 7, to conduit 9, to cylinder 3, to conduit 8 to the inlet of check valve 6); the inlet/outlet port (where conduit 4 enters chamber 5) in direct fluid communication with said inlet of said first check valve (7) and in direct fluid communication with said outlet of said second check valve (6) at the common refill/evacuation location (5)" as recited in claim 1.

Thus the patent to Knobloch et al. discloses all the claimed features with the exception of having "a flow control valve in direct fluid communication with the inlet/outlet port".

The patent to Robert et al. discloses that it is known in the art to employ a "flow control valve" at valve 63, in communication with an inlet/outlet port at fitting 68, which fitting 68 is located within a recirculating fluid circuit, for the purpose of controlling the flow of fluid within the fluid line in which valve 63 is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al. a valve located in any portion of fluid line 4, including conduit 12, for the purpose of controlling the flow of fluid within the fluid line in which this is located such that, depending on the pressure differential in

that line, fluid flows to and/or from the fluid recirculating circuit, such as flowing to and/or from the valve chests 5, 5a, as recognized by Robert et al.

Regarding claim 4, in Knobloch et al., "said second check valve (6 is) in fluid communication with at least one fluid reservoir" read at cylinder 3, as recited.

Regarding claim 6, in Raines, "at least one fluid component (at valve chest chamber 5 or pump piston 2) in fluid communication with said inlet/outlet port (4)" as recited.

Regarding claim 7, the patent to Knobloch et al. discloses a "valve system comprising: a first valve assembly (at valve chest 5) comprising, a first check valve (7) structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (7), further comprising an outlet of said first check valve (7) being in fluid communication with a first portion (the conduit leading from check valve 7 to the conduit 9) of a first fluid system (chest 5 to conduit 9 to cylinder 3 to return conduit 8 back to chest 5), wherein the application of positive pressure from a first inlet/outlet port (4) at a first common refill/evacuation location (valve chest 5) causes fluid to flow from the first common refill/evacuation location (5) through said first check valve (7) into the first portion of said first fluid system; a second check valve (6) having an outlet in fluid communication with said inlet of said first check valve (7), said second check valve (6) being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve (6), further comprising an inlet of said second check valve (6) being in fluid communication with at least the first portion (conduit 9, via conduit 8 and cylinder 3) of said first fluid system, wherein the application of negative pressure from the first inlet/outlet port (4) at the first common refill/evacuation location (5) causes fluid to flow from the first portion (conduit 9) of said first fluid system through said second check

valve (6) into the first common refill/evacuation location (5), wherein said outlet of said first check valve (7) is in fluid communication with the inlet of said second check valve (6) via the fluid circuit from the outlet of check valve 7, to conduit 9, to cylinder 3, to conduit 8 to the inlet of check valve 6); the first inlet/outlet port (4) in direct fluid communication with said inlet of said first check valve (7) and in direct fluid communication with said outlet of said second check valve (6) at the first common refill/evacuation location (5);... a second valve assembly (at valve chest 5a) comprising, a third check valve (7a) structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said third check valve (7a), further comprising an outlet of said third check valve being in fluid communication with a second portion (the conduit leading from check valve 7a to conduit 9) of a second fluid system (valve chest 5a to conduit 9 to cylinder 3 to return conduit 8 back to valve chest 5a), wherein the application of positive pressure causes from a second inlet/outlet port (4a) at a second common refill/evacuation location (chamber 5a) fluid to flow from the second common refill/evacuation location (at chest 5a) through said third check valve (7a) into the second portion (leading to conduit 9) of said second fluid system; a fourth check valve (6a) having an outlet in fluid communication with said inlet of said third check valve (7a), said fourth check valve (6a) being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said fourth check valve (6a), further comprising an inlet of said fourth check valve (6a) being in fluid communication with at least the second portion (the conduit leading to conduit 9 from check valve 7a via return conduit 8 and cylinder 3) of said second fluid system (5a, 9, 3, 8, 5a), wherein the application of negative pressure from a second inlet/outlet port (4a) at the second common refill/evacuation location (5a) causes fluid to flow from the second portion of said second fluid system through said fourth check valve (6a) into the

second common refill/evacuation location (5a), wherein said outlet of said third check valve (7a) is in fluid communication with the inlet of said fourth check valve (6a) via the fluid circuit from the outlet of check valve 7a, to conduit 9, to cylinder 3, to conduit 8 to the inlet of check valve 6a); the second inlet/outlet port (4a) in direct fluid communication with said inlet of said third check valve (7a) and in direct fluid communication with said outlet of said fourth check valve (6a) at the second common refill/evacuation location (5a)" as recited.

Thus the patent to Knobloch et al. discloses all the claimed features with the exception of having "a flow control valve in direct fluid communication with the first (and) second inlet/outlet port".

The patent to Robert et al. discloses that it is known in the art to employ a "flow control valve" at valve 63, in communication with an inlet/outlet port at fitting 68, which fitting 68 is located within a recirculating fluid circuit, for the purpose of controlling the flow of fluid within the fluid line in which valve 63 is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al. a valve located in any portion of fluid line 4 and 4a, including conduit 12, for the purpose of controlling the flow of fluid within the fluid line in which this is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit, such as flowing to and/or from the valve chests 5, 5a, as recognized by Robert et al.

Regarding claim 10, in Knobloch et al., "at least one of said second check valve (6) and said fourth check valve (6a) being in fluid communication with at least one fluid reservoir" read at cylinder 3, as recited.

Regarding claim 12, in Knobloch et al., "at least one fluid component (such as valve chests 5, 5a or pump piston 4 is) in fluid communication with at least one of said inlet/outlet ports" 4, 4a, as recited.

Regarding claim 37, the patent to Knobloch et al. discloses a "module comprising: a first valve assembly (at valve chest 5) comprising, a first check valve (7) structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (7), further comprising an outlet of said first check valve (7) being in fluid communication with a first portion (the conduit leading from check valve 7 to conduit 9) of a first fluid system (chest 5 to conduit 9 to cylinder 3 to return conduit 8 back to valve chest 5), wherein the application of positive pressure from a first inlet/outlet port at (4) a first common refill/evacuation location (chamber 5) causes fluid to flow from the first common refill/evacuation location (5) through said first check valve (7) into said first fluid system; a second check valve (6) having an outlet in fluid communication with said inlet of said first check valve (7), said second check valve (6) being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve (6), further comprising an inlet of said second check valve (6) being in fluid communication (via conduit 8 and cylinder 3) with at least the first portion (the conduit leading from check valve 7 to conduit 9) of said first fluid system, wherein the application of negative pressure from the first inlet/outlet port (4) at the first common refill/evacuation location (5) causes fluid to flow from the first portion of said first fluid system through said second check valve (6) into the first common refill/evacuation location (5) wherein said outlet of said first check valve (7) is in fluid communication with the inlet of said second check valve (6) via the fluid circuit from the outlet of check valve 7, to conduit 9, to cylinder 3, to conduit 8 to the inlet of check valve 6); the first inlet/outlet port (4) in direct fluid communication

with said inlet of said first check valve (7) and in direct fluid communication with said outlet of said second check valve (6) at the first common refill/evacuation location (5); and,... at least a second valve assembly (5a) comprising, a third check valve (7a) structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said third check valve (7a), further comprising an outlet of said third check valve (7a) being in fluid communication with a second portion (the conduit leading from check valve 7a to conduit 9) of a second fluid system (valve chest 5a, to conduit 9 to cylinder 3 to return conduit 8 back to valve chest 5a), wherein the application of positive pressure from a second inlet/outlet port (4a) at a second common refill/evacuation location (5a) causes fluid to flow from the second common refill/evacuation location (5a) through said third check valve (7a) into said second fluid system; a fourth check valve (6a) having an outlet in fluid communication with said inlet of said third check valve (7a), said fourth check valve (6a) being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said fourth check valve (6a), further comprising an inlet of said fourth check valve (6a) being in fluid communication (via return conduit 8, cylinder 3) with at least the second portion (the conduit leading from check valve 7a to conduit 9) of said second fluid system, wherein the application of negative pressure from a second inlet/outlet port (4a) at the second common refill/evacuation location (5a) causes fluid to flow from the second portion of said second fluid system through said fourth check valve (6a) into the second common refill/evacuation location (5a); wherein said outlet of said third check valve (7a) is in fluid communication with the inlet of said fourth check valve (6a) via the fluid circuit from the outlet of check valve 7a, to conduit 9, to cylinder 3, to conduit 8 to the inlet of check valve 6a); the second inlet/outlet port (4a) in direct fluid communication with said inlet of said third check valve (7a) and in direct fluid

communication with said outlet of said fourth check valve (6a) at the second common refill/evacuation location 95a);... and, said first and second valve assemblies (5, 5a) being coupled together (as by their associated plumbing) to form said module" as recited.

Thus the patent to Knobloch et al. discloses all the claimed features with the exception of having "a flow control valve in direct fluid communication with the first (and) second inlet/outlet port".

The patent to Robert et al. discloses that it is known in the art to employ a "flow control valve" at valve 63, in communication with an inlet/outlet port at fitting 68, which fitting 68 is located within a recirculating fluid circuit, for the purpose of controlling the flow of fluid within the fluid line in which valve 63 is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al. a valve located in any portion of fluid line 4 and 4a, including conduit 12, for the purpose of controlling the flow of fluid within the fluid line in which this is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit, such as flowing to and/or from the valve chests 5, 5a, as recognized by Robert et al.

Regarding claim 40, in Knobloch et al., "at least one of said second check valve (6) and said fourth check valve (6a) being in fluid communication with at least one fluid reservoir" read at cylinder 3, as recited.

Regarding claim 44, in Knobloch et al., "at least one fluid component (such as valve chests 5, 5a or pump piston 4 is) in fluid communication with at least one of said inlet/outlet ports" 4, 4a as recited.

Regarding claim 55, in making and/or using the device of Knobloch et al. one necessarily performs a method of “of performing at least one fluid operation in a fluid system, said method comprising: structuring a first check valve (7) to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (7), further structuring said first check valve (7) with an outlet in fluid communication with a first portion (the conduit leading from check valve 7 to conduit 9) of a fluid system (valve chest 5 to conduit 9 to cylinder 3 to return conduit back to valve chest 5), wherein the application of positive pressure from an inlet/outlet port (4) at a common refill/evacuation location (85) causes fluid to flow from the common refill/evacuation location (5) through said first check valve (7) into said fluid system; structuring a second check valve (6) having an outlet in fluid communication with said inlet of said first check valve (7), further structuring said second check valve (6) to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve (6), further structuring said second check valve (6) such that said second check valve (6) comprises an inlet of said second check valve (6) being in fluid communication (via conduit 8, cylinder 3) with at least the first portion (the conduit leading from check valve 7 to conduit 9) of said fluid system, wherein the application of negative pressure from the inlet/outlet port (4) at the common refill/evacuation location (5) causes fluid to flow from said fluid system through said second check valve (6) into the common refill/evacuation location (5), and further structuring said second check valve (6) such that said inlet of said second check valve is in fluid communication with said outlet of said first check valve (7 via the connecting fluid circuit between check valve 7, conduit 9, cylinder 3, conduit 8 to the inlet of check valve 6); positioning the inlet/outlet port (4) in direct fluid communication with said inlet

of said first check valve (7) and in direct fluid communication with said outlet of said second check valve (6) at the common refill/evacuation location (5)" as recited.

Thus the patent to Knobloch et al. discloses all the claimed features with the exception of "positioning a flow control valve in direct fluid communication with the inlet/outlet port".

The patent to Robert et al. discloses that it is known in the art to employ a "flow control valve" at valve 63, in communication with an inlet/outlet port at fitting 68, which fitting 68 is located within a recirculating fluid circuit, for the purpose of controlling the flow of fluid within the fluid line in which valve 63 is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al. a valve located in any portion of fluid line 4, including conduit 12, for the purpose of controlling the flow of fluid within the fluid line in which this is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit, such as flowing to and/or from the valve chests 5, 5a, as recognized by Robert et al. resulting in "positioning" of the valve taught by Robert et al. in the circuit of Knobloch et al.

Regarding claim 58, in making and/or using the device of Knobloch et al. one necessarily performs a further method step "comprising positioning said second check valve (6) in fluid communication with at least one fluid reservoir" read at cylinder 3, as recited.

Regarding claim 60, in making and/or using the device of Knobloch et al. one necessarily performs a further method step "comprising operatively associating at least one fluid component (such as valve chests 5, 5a or pump piston 4) in fluid communication with said inlet/outlet port (4)" as recited.

Regarding claim 61, in making and/or using the device of Knobloch et al. one necessarily performs a further method step "comprising applying positive pressure at said common refill/evacuation location" 5 through conduit 4 as recited.

Regarding claim 62, in making and/or using the device of Knobloch et al. one necessarily performs a further method step "comprising applying negative pressure at said common refill/evacuation location (5) after said applying positive pressure at said common refill/evacuation location (5)" as recited.

Regarding claim 63, in making and/or using the device of Knobloch et al. one necessarily performs a further method step "comprising performing at least one fluid refill operation by said applying positive pressure at said common refill/evacuation location (5)" as recited.

Regarding claim 65, in making and/or using the device of Knobloch et al. one necessarily performs a further method step "comprising applying negative pressure at said common refill/evacuation location (5)" as recited.

Regarding claim 66, in making and/or using the device of Knobloch et al. one necessarily performs a further method step "comprising applying positive pressure at said common refill/evacuation location (5) after said applying negative pressure at said common refill/evacuation location (5)" as recited.

Regarding claim 67, in making and/or using the device of Knobloch et al. one necessarily performs a further method step "comprising performing at least one fluid evacuation operation by said applying negative pressure at said common refill/evacuation location (5)" as recited.

Regarding claims 13, 16 and 18, Knobloch et al., as modified by Robert et al., discloses the claimed invention except for additional "valve assemblies" including a

“third” valve assembly, the additional assembly including a respective inlet and outlet check valves connected to a common “refill/evacuation location”.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the valve assembly of Knobloch et al. such that one employs multiple separate individual valve assemblies to transfer fluid from respective individual inlets to respective individual outlets, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art unless a new and unexpected result is produced. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

In comparing the claim language at issue with the single valve assembly of Knobloch et al., it is clear that the claim language merely reflects multiple individual separate assemblies, each one of which is no different than the other or from that assembly demonstrated to be known by Knobloch et al.

Claims 2, 3, 8, 9, 38, 39, 56, 57, 64, 68, 69 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knobloch et al. in view of Robert et al., as applied to claims 1, 4, 6, 7, 10, 12, 13, 16, 18, 37, 40, 44, 55, 58, 60-63 and 65-67 above, further in view of Gargas (U. S. Pat. No. 4,684,334).

The patent to Knobloch et al., as modified by Robert et al., discloses all the claimed features with the exception of having “said fluid system portion includes at least a pre-filter portion... being in fluid communication with at least one fluid filter”.

The patent to Gargas discloses that it is known in the art to employ a filter element at 11 downstream of a pump assembly, essentially forming a “pre-filter portion” of the downstream fluid circuit for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al., as modified by Robert et al., in conduit 4 and/or 4a a filter element thus forming a "pre-filter portion" for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination as recognized by Gargas.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knobloch et al. in view of Robert et al., as applied to claims 13, 16 and 18 (regarding duplication of parts), further in view of Gargas (U. S. Pat. No. 4,684,334) as applied to claims 2, 3, 8, 9, 38, 39, 56, 57, 64, 68, 69 and 81 above.

Claims 5, 11, 41 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knobloch et al., as modified by Robert et al., as applied to claims 1, 4, 6, 7, 10, 12, 13, 16, 18, 37, 40, 44, 55, 58, 60-63 and 65-67 above, further in view of Raines.

The patent to Knobloch et al., as modified by Robert et al., discloses all the claimed features with the exception of having a "quick disconnect operatively associated with at least one of said inlet/outlet ports".

The patent to Raines discloses that it is known in the art to employ a "quick disconnect" at the friction fit of the syringe and its inlet/outlet port at the end of the syringe with the "common refill/evacuation location" chamber 100 for the purpose of permitting simple, easy, and repeatable connection of the inlet/outlet port to the refill/evacuation location.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al., as modified by Robert et al., a "quick disconnect" connecting the end of conduit 4, 4a with the valve chest 5, 5a,

respectively, for the purpose of permitting simple, easy, and repeatable connection of the inlet/outlet port 4, 4a to the refill/evacuation location 5, 5a, respectively, as recognized by Raines.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knobloch et al. in view of Robert et al., as applied to claims 13, 16 and 18 (regarding duplication of parts) above, further in view of Raines as applied to claims 5, 11, 41 and 59 above.

Response to Arguments

Regarding applicants remarks as they may apply to the above, the argument that:

"the technical problems addressed by Knobloch are very different in comparison to the technical problems addressed by various embodiments of the present invention (and that) the structure of Knobloch cannot function to perform fluid evacuation and refill operations similar to the procedures that can be accomplished by the structure of the valve assembly recited in Claim 1"

is unpersuasive.

From M.P.E.P. §2114:

"While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. >In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997)."

Thus whatever function applicant alleges the claimed device is capable of performing over the device of Knobloch, which functional distinction is not recognized on the basis of the claimed structural elements finding their equivalents in the prior art combination as set forth above, does not serve to patentably distinguish over the prior art.

Applicants further arguments that:

"Controlling fluid movement based on rate of flow or pressure differential with a control flow valve as suggested in the Office Action is not taught, suggested or disclosed by Knobloch. The Knobloch apparatus does not need "a flow control valve in direct fluid communication with the inlet/outlet port," because its apparatus is structured for alternately circulating gaseous media, such as hot gases under high pressure in chemical processes, through its fluid system. Accordingly, attempting to apply the teachings of Robert to Knobloch in the way proposed in the Office Action amounts to at least a partial destruction of the Knobloch references, if not both references.

is also unpersuasive.

Firstly, there is no prerequisite that the primary reference in a combination rejection under 35 USC 103(a) provide a teaching, suggestion or disclosure of the otherwise missing element(s) of an application claim. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, The requisite teaching, suggestion or motivation is clearly found in Robert et al. wherein a control valve 63 in communication with an inlet/outlet port at fitting 68, which fitting 68 is located within a recirculating fluid circuit, for the purpose of controlling the flow of fluid within the fluid line in which valve 63 is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit. Thus to locate a control valve in the inlet/outlet conduit 4 of Knobloch et al., which inlet/outlet line 4 serves to supply and exhaust fluid to and from the circuit, for the purpose of controlling the flow of fluid within the fluid line 4 is exactly what is taught by Robert et al.

The further argument concerning "direct fluid communication" (emphasis in original) being distinguishable from Knobloch et al. by reason of the remote connection of the pump and valve assemblies of Knobloch et al. is also unpersuasive.

"Direct fluid communication" is taken to mean that in the communicating fluid conduction passage therebetween, there is no other element in the fluid passage in the way of the passing fluid. As taught by Knobloch et al., there are no fluid restricting elements on the passage. That is, in Knobloch et al. between the inlet/outlet port 4 and the inlet of the first check valve 7, there is no fluid restricting element in the passage which would preclude "direct fluid communication" in the same manner as disclosed in the instant application. Alternatively, Robert et al. discloses an inlet/outlet port, at the horizontal left side of "T" fitting 68, to be in "direct fluid communication" with the inlet of a first valve 70 or 72.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN RIVELL whose telephone number is (571) 272-4918. The examiner can normally be reached on Mon.-Fri. from 6:00am-2:30pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/John Rivell/
John Rivell
Primary Examiner
Art Unit 3753**